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ABSTRACT

The booklet explores the role of sensory experiences in the severely developmentally disabled child. Developmental theory is addressed, followed by specific activity suggestions (broken down into developmental levels) for developing tactile sense, auditory sense, gustatory (taste) sense, olfactory sense, visual sense, and kinesthetic sense. Reference materials address cognitive mapping (a way of determining sensory strengths and weaknesses), suggestions for drool control, and ways to deal with tactile defensive responses. (CL)

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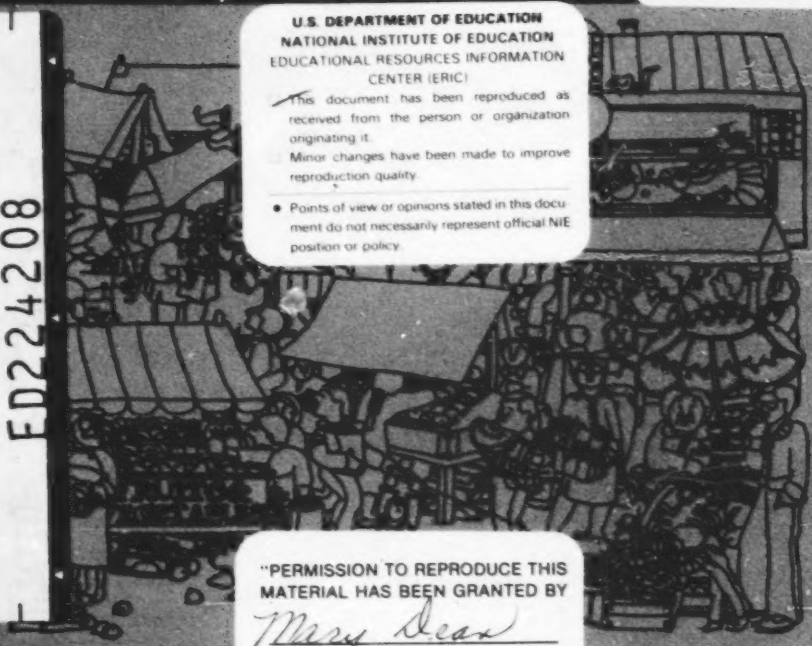

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OUR SENSORY WORLD

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C. Liesman and M.D.Barringer

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SENSORY STIMULATION

Concepts, ideas and activities related to sensory input and the severely developmentally disa led child.

Catherine Liesman
Mary Dean Barringer

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INTRODUCTION...

...Take a moment and become aware of your sensory input process. The feel of the chair against your body; the sounds emitting from others in the room or your own body noises; the light overhead and the words on the blackboard; the remnants of coffee and donuts in your mouth and the aroma perhaps of lunch or the smell of cigarette smoke or your own clothes. All this is happening at once and it does take an effort on your part to focus individually on the various sensory avenues. Each sense provides the person with information and hence, knowledge.

When working primarily with children who are developmentally disabled, sensory input and an understanding of its process is valuable. Often, the avenue of learning is simple without the cognitive process such as, "I like the feel of mashed potatoes on the roof of my mouth...I do not like the feel of ground beef...I eat only the potatoes and spit out the other...I am a tactile learner." What is important here is the immediate response. Also, each student has a particular sense which predominates (All of us do!!) and finding out the individuals mode of sensory learning will help in programming for each particular student.

Let us consider first our sensory awareness, then discover what form of learning predominates for us as adults...

John Stevens (1971) speaks of sensory awareness in a clear and succinct way in the following:

There are two main components of sensory awareness. They are:

(1) Awareness of the outside world. This is actual sensory contact with objects and events in the present: what I now actually see, hear, smell, taste or touch. Right now I see my pen sliding over the paper, forming words, and I hear a humming noise. I smell smoke from the fire, I feel the texture of the paper under my hands, I taste the sweet, fruity taste of strawberries in my mouth.

(2) Awareness of the inside world. This is actual sensory contact with inner events in the present: what I actually feel from inside my skin- it itches, muscular tensions and movements, physical manifestations of feelings and emotions, discomfort, well-being, etc. Right now I feel pressure in the tip of my left index finger as it holds the paper down, I feel an unpleasant tightness in the right side of my neck and as I move my head it feels somewhat better, etc.

These two kinds of awareness encompass all that I know about present reality as I experience it. This is the solid ground of my experience" these are the facts of my existence here in the moment they occur. No matter how I or others think or feel about this awareness, it exists and no amount of arguing, theorizing or complaining can make it non-existent.

Stevens, John. "Awareness- Exploring, Experimenting, Experiencing" Real People Press

SENSORI- MINI SESSIONS

Today we plan to take a few moments and focus on each sense individually. After each experience, please write two or three images that may emerge.

SEEING	TASTING
1.	1.
2.	2.
3.	3.
HEARING	**SMELLING**
1.	1.
2.	2.
3.	3.
TOUCHING	**MOVING**
1.	1.
2.	2.
3.	3.

Which did you like the most...?

Which did you like the least...?

Do you know your predominate sense?

THERE IS MORE THEORETICAL INFORMATION ON THIS IN THE COGNITIVE MAPPING SECTION OF THE REFERENCES...

SOME THOUGHTS ON DEVELOPMENTAL THEORY

Another aspect to consider when exploring sensory strengths and weaknesses is the developmental age of the student. Most SMI students are functioning either in the sensori-motor stage of development or in the pre-operational stage (according to Piaget). What this means is that 1) concrete experiences provides the basis for all learning, 2) students are ego-centric in their world view, and 3) sensory-motor activities will be the most interesting and involving ones for them. To clarify these concepts, let's respond to the following questions:

What are developmental stages?

A developmental stage is a span of time (months or years) wherein a normal child performs certain actions or has certain responses. An example of this is a child will stand alone and walk about 4-5 steps at 12 months of age. A stage of development will include all aspects of functioning unless otherwise noted (i.e. John S. is 30 months developmentally in the cognitive and affective domain and he's functioning at 36 months in gross and fine motor).

What is the sensori-motor stage of development?

This is the earliest period of development as designated by Piaget (0-2 years). A child at this level responds with the senses and initially has reflexive actions. Action patterns begin and a child experiments with the external world and its events. Through interaction with objects and persons, the child begins to modify actions by the end of this period (must perform action physically in order to understand it).

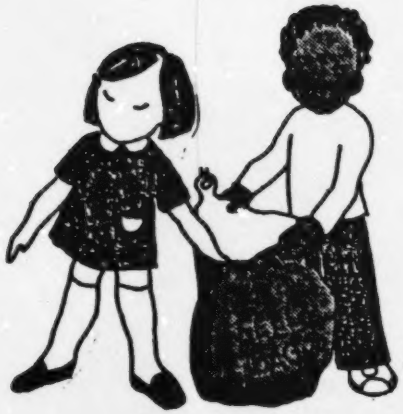
What is the pre-operational stage of development?

This follows the sensori-motor stage and it is the period for 2 - 7 year old child. It marks the beginning for thought (in images or symbols) where actions do not have to be performed externally. Events or actions can be related to mental images or words. Deferred imitation and symbolic play are important during this period.

What do I know when a student is 13 years old and functioning developmentally as a 3 year old?

First, that she/he is beginning to represent action into thought so she/he will have some language, imitation skills and symbolics play. He or she will be able to copy circles, lines, do some cutting, build with blocks (towers and bridges), know simple songs, name pictures, undresses self and is beginning to

play group games with peers. Sometimes the level of functioning will vary due to motoric ability or emotional state, etc. Also, progress becomes limited after a certain degree of growth so that it might take a SMI student a year to progress one step while normally a child of 3 years would only need a month or two.



TACTILE SENSE

The sense of touch refers to information received through the skin either by feeling and/or touching. This sense is affected by temperature. Also, specific areas of the body may be hypersensitive to a tactile experience. (for example, the palms of the hands or feet) In the exploration of one's environment, this sense is essential.

TACTILE SENSE

"Something makes me want to touch
everything...and that's so much!
But I can't learn very much
Unless I am allowed to touch."

(Elder Herring)

DEVELOPMENTAL LEVEL	ACTIVITY
These activities can be started at 0 - 6 month development level.	Pour a bit of lotion on student's arms and help him/her rub it into the skin.
	Spray water on body parts and rub off with terry cloth, paper towel or sponge.
	Rub elbows, heels of feet, knees with a Puma stone.
	Put silk scarves over different parts of the body for students to feel.
	Pull small students on sheet or blanket around the room.
	Wrap student up in a blanket.
	Suspend texture balls on ballons from the ceiling for student to hit with arms or feet.
	Use a hot water bottle or heating pad and place on different parts on the students body.
	Use an oral vibrator or hand massage to rub on different parts of the body.
	Take a trip to the petting farm (Children's Zoo, pet store, farm, Humane Society).
These activities can be started at the 6 month developmental level.	Dip sponge into warm water and squeese it into other hand or on arms and legs.
	Purchase laundry tub to make various sensory tubs: (sand table, water table, snow table: put drops of food coloring to change/blend colors, mud table in spring, Easter grass: hide Easter eggs for students to feel and find, rice, dried beans and peas, macaroni, noodles, styrofomas, confetti and other packing materials, chocolate pudding, jello).
	Make a Feely Board of different textures. Get a piece of plywood and use the following materials: mirror, sandpaper, cork bathroom tile, carpet, solarium tile, fake fur. velvet, quilted material, satin, plater, felt, brillo pad, cotton balls, etc.
	Bring in different objects from outside following a walk. Let students explore leaves, twigs, stones, grass, pinecones, etc.
	Wrap up toys or objects in different textured materials for the students to unwrap.
	Make textured blocks for students to stack.

DEVELOPMENTAL LEVEL	ACTIVITY
6 month developmental level (cont.)	Put a variety of pouring and squeezing tools by the water play table to stimulate water exploration. Suggestions might be: sponges, measuring cups and spoons egg beaters, tubing (old hose), strainers, sifters, squirt bottles, plastic bottles, water toys, funnels.
	Use a zip lock bag and fill it with finger paint. Tape the top of the bag securely. Encourage child to squeeze paint all over the bag. Have him use his fingers like a pencil. Drawings are erased by resqueezing the bag.
These activities can be started at the 12 month developmental level.	Make bread dough and knead with hands.
	Draw on carpet squares with chalk and erase with arms an hands or feet!
	Use the Creative Playthings Texture Ball to play rolling games.
	Place ice in students one hand and put other hand in warm water to provide a tactile sense of "difference".
	In warm weather, use an old piece of plastic (painter's drop cloth) and a water sprinkler to create a slip and slide for students. Weight the plastic down with large rocks.Make thumbprints by pressing fingers on ink and then amking all over paper. Use the "Thumbprint Book" for ideas on what to make from the thumbprints.
These activities can be started at the 18 month developmental level.	Squeese, rip, crumple various paper textures; foil, wrapping paper, waxed paper, newspaper, saran wrap, paper towels.
	Tear up newspapers into strips and then into pieces to make "snow". Throw it up in the air to have a snowstorm Then pick up the pieces, stuff in container and jump up and down to squash it.
	Make a sculpture out of paper maiche.
	Make a "quiet book" with various textures on the pages.
These activities can be started at the 24 month developmenta. level.	Make a "feely-meely" box. Take a box and cut holes in it large enough for a hand to get through. You can put in objects to identify through feel or cover the inside with various textured squares for students to feel.
	Cut out an outline of an animal on cardboard and have student paste fur and yarn to make the coat.
	Feel opposites: wet/dry, rough/smooth, bumpy/smooth, hot/cold, hard/soft, etc.
	Use rice, dried beans, peas, oats, cereal, sand, pebbles aquarium gravel, sunflower seeds, etc.; spoons and clear bottles. Have students fill the bottles with different materials. They can do it with their hands if they like.

Tactile Sense (cont.)

DEVELOPMENTAL LEVEL	ACTIVITY
These activities can be started at the 30 month developmental level.	Make tactile name cards by cutting out students name from sandpaper letters.
These activities can be started at the 3 year old developmental level.	Use an old piece of inner tube or the Incredible Suit for students to experience the feel of pulling.
These activities can be started at the 4 year old developmental level.	Play "What's It Made Of?" Talk about what various objects are made of; ask questions to help students classify. Put one set of objects in one box and the other set in another box. Pul out an object from the one box and instruct the student to find a similiar objects from the other box. Pairs of objects from the same material: RUBBER: ball, eraser, rubber band, tire PLASTIC: cup, bowl, spoon GLASS: glasses, bottle, jar WOOD: block, wooden toy, wooden spoon PAPER: card, newspaper, envelope METAL: key, fork, ring LEATHER: shoe, belt, wallet FABRIC: sock, towel, doll clothes
These activities can be started at the 5 year old developmental level.	

RECIPES FOR TEXTURED AND TACTILE MATERIALS

PEANUT BUTTER PLAYDOUGH: Mix together ¼ cup of honey, a ¼ cup of peanut butter and a ½ cup of dry milk.

SILLY PUTTY: Mix together a ½ cup of Elmer's glue and a ¼ cup of liquid starch

FINGER PAINT: Gradually add 2 quarts of water to 1 cup of corn starch. Cook until clear and add ½ cup of soap flakes. A few drops of glycerin or oil of wintergreen may be added.

PLAY DOUGH: Mix together 4 cups of flour, ½ cup of salt and a ½ cup of powdered tempura paint. Gradually add approximately 1½ cups water mixed with 1 tbsp. oil. Keep kneading the mixture as you add the liquid. Add more water if too stiff, more flour if too sticky. Let children help with the mixing and measurin

MODELING GOOP: Stir 2 cups table salt and 2/3 cup water over low to medium heat for 4-5 minutes. Remove from heat. Mix 1 cup of cornstarch with ½ cup water and ad the first mixture. Stir until smooth. Return mixture to low heat and continue to stir. The "goop" will thicken quickly. This may be used for mod- ing and will not crumble when dry as some clay products tend to do. Objects like beads and macaroni may be added. Store unused portions in a plastic bag or airtight c

SQUEEZE BOTTLE GLITTER: Mix equal parts of flour, salt and water. Pour into plasti squeeze bottles such as those used for ketchup. Liquid colored tempura paint may be added for variety. Squeeze onto heavy construction paper or cardboard. The salt gives the designs a glistening effect when dry.

BOOKS FOR STUDENTS INVOLVING TACTILE EXPERIENCES:

Pat the Bunny; D. Kundhart
What is Your Favorite Thing to Touch?; M.T.Gibson
Find out by Touching; showers, Paul
Touching for Telling; Podendorf, B.
Touch Me Book; White, eve

AUDITORY SENSE

The sense of hearing refers to information received through the ears (sound vibration). The control of this sense is involuntary however, the hearing pattern of each sound is different for each one of us. In an infant a patterned sound produces more response that a pure tone. Therefore, a human voice frequency is one of the most effective first sounds an infant hears.

"Your ears catch the many sounds of the world."

K. Elgin

AUDITORY EXPERIENCES

DEVELOPMENTAL LEVEL	ACTIVITIES
Birth to 3 months and above	-During routine times, talk to students about what you are doing. Encourage and reinforce them for turning and looking at you while you are talking. -To encourage student to turn his head in the direction of a sound, hide in different parts of the room and call students name. Make a game out of it. "Hi, Larry! Guess where I am? That's right, now I see you and you see me!"
3 to 6 months and above	-Use a variety of cause and effect toys such as bells, rattles, squeak toys. After demonstrating how to use them, encourage the student to use them independently. You are teaching a functional play skill as well as stimulating the auditory sense.
6 to 9 months and above	-Begin to teach rhythm games. Give a shaker to the student and one for yourself. Shake the rattle and encourage the student to imitate. When the student has accomplished this, try these rhythms: (1) Shake several beats, then once and repeat: "Shaaaaake---a- shake" (2) "Shake, shake (pause, pause): Shake, shake (pause, pause)" (3) "Shake, shake, shake (pause, pause, pause) *It will take students a long time to achieve this if they are at a functioning level of 6 to 9 months. -Provide unbreakable pots, bowls and pounding equipment for students to pound and bang. -Provide musical instruments (homemade or commercial) for students to use while listening to music.
12 months and above	-March around the room to music with the students holding (or tie to wrist) noisemakers such as bells, maracas, etc. Encourage students to shake the noisemakers. -By placing a hearing aid in the student's ear, he can experience the differences in sound by alternating the volume.

AUDITORY EXPERIENCES

DEVELOPMENTAL LEVELS	ACTIVITIES
18 months and above	-Use a Mattel "See and Say". These commercially made toys can help the student develop auditory discrimination. The student simply pulls a string and listens for the sound. You can begin to encourage imitation of the sound.
	-Hide an alarm clock under of three containers. When the bell of the clock goes off, have the student guess where the clock is hidden. You can also hide the clock in various parts of the room and do this activity.
24 months and above	-Use the DLM Auditory Discrimination tape. As the sound is being played, show students the picture of the sound-making object and label it. At around 48 months, display the pictures and and play the tape. Stop the tape after each sound and ask the students to point to the correct picture or label it.
	-Use a stethescope. Show the student how to use it. Place it to his hear to hear the beat. Let him hear the beat of someone else's heart. Talk into it to hear amplification.
30 months and above	-Use records such as "Hap Palmer's Homemade Band" and Ella Jenkins "Play Your Instrument and Make a Pretty Sound". The activities are self-explanatory and directions are included as to how to make several instruments.
	-Use the Creative Playthings Music Box. This object combines a visual aspect of music with the auditory enjoyment it produces.
	-Use a Creative Playthings recorder. It is a good instrument to use for introducing musical variation that can be made while blowing.
36 months and above	-Play follow the leader. The instructor will demonstrate a pattern such as clap, clap or stamp, stamp for the students to imitate. For developmentally higher students, make a cassette recording of the sounds for them to imitate.

AUDITORY EXPERIENCES

DEVELOPMENTAL LEVEL	ACTIVITIES
36 months and above	-Encourage sound imitation using the See and Say series or the book and record set "Too Much Noise". To help develop auditory memory, play a game called "Make a sound like a ____." Then play the sound to see if the students were correct. -Bell Telephone Company provides a phone system for the classroom to enable students to engage in phone conversations. Students can call each other and hear their conversation amplified.
42 months and above	-Play a Mix and Match game with the Creative Playthings Sound Cans or make them yourself. Use film cans and fill with rice, salt, sand, paper clips, marbles, etc. Make identical sets. Have the student shake one and then try to find another can that sounds the same. Lift the lid to see if he was correct. -Read the "Noisy Book" to students and make the noises. Have students guess what the sound represents. Repeat the story and name the object and have the students make the noise.

BOOKS FOR STUDENTS:

Brown, Margaret: The Noisy Book
Frost: Whispering Sounds: A Listening Book
McGovern, Ann: Too Much Noise
Summers: Bell Sounds: A Listening Book

TASTE (GUSTATORY) SENSE

The sense of taste refers to information gained through the taste bud receptors in the mouth (sweet, sour, salty, and bitter). It is a chemical process just as the sense of smell is. Taste on its own is a simple sense since the finer discriminations we think we make by taste we actually make in combination with the sense of smell.

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"Snowflakes drift.
I taste winter
Melting on my lips."

K. Mizumura

TASTING EXPERIENCES

DEVELOPMENTAL LEVEL	ACTIVITIES
(As taste is a primitive sense, these activities may be conducted at any developmental level.)	-Pack fresh snow into a dixie cup. Let the student pour his own fruit flavored gelatin (dry) on the snow. Eat with a spoon or a straw. If new snow is available, do this activity with crushed ice.
	-Make Jack Wax. Pour two cups of maple syrup in a saucepan and boil until the soft-ball stage is reached. Pour the hot syrup over crushed ice in a salad bowl. Twirl the wax onto forks.
	-POPCORN: This is an example of a multi-sensory experience. You can taste the butter, salt and hard corn before popping; feel the heat from the popper, hear the corn popping as well as see it, smell the ingrediants as they are cooking and taste the results!
	-Have an apple day. Make applesauce, taste raw vs. cooked apples and make dried apple rings.
	-Crack a coconut shell. Taste the milk and meat inside the shell. Compare the taste to shredded coconut. Save the shell and make a birdfeeder.
	-PUMPKINS: Another seasonal multi-sensory experience. Feel the weight and texture of the pumpkin and feel the pumpkin guts as you clean out the inside. Roast the pumpkin seeds and make a pumpkin pie or pumpkin bread.
	-Let the student experience different textures in tasting: banana vs. celery; raw vs. cooked carrot; lollipop vs. marshmallow; cooked spaghetti vs. pretzel, etc.
12 months and above	-The purpose of this activity is to reinforce the student's awareness of the act of tasting and to recognize sweet tastes. Have the student taste small quanities of jelly, jello, sugar, hard candy, etc. Label each item and say, "This is sugar, it is sweet." Let student then taste a lemon. "Is the lemon sweet? No, it is sour."

TASTING EXPERIENCES

DEVELOPMENTAL LEVEL	ACTIVITIES
28 months and above	-Have a variety of familiar foods on the table: without looking (blindfolded or eyes closed), have the student taste a food. When he has tasted, have him open his eyes and try to point or label what food he tasted.
48 months and above	-Provide look-alike food substances for the student to discriminate through tasting. Some examples would be: vanilla vs. soy sauce, salt vs. sugar, flour, cornstarch and powdered sugar, sweetened vs. unsweetened chocolate. -Let the student taste opposites: honey vs. lemon, sweetened vs. unsweetened chocolate, pretzel vs. carrot, etc.

Since most tasting experiences involve food, many activities will be addressed in the Cooking section of this handbook.

CREATING A COOKING CENTER

Cooking is an activity that can be used to meet several quite different objectives. Using food is reinforcing in itself and will often capture the attention of students and hold it longer than other materials. Cooking also provides students the opportunity to do something "real"— something that is a part of their environment outside the school.

Not only is cooking fun- but you are teaching skills in the cognitive, affective and psychomotor domains. Language concepts are built through labeling, using prepositions, following one and two-step commands and sequencing. Math and science concepts are introduced: it provides opportunity for measuring, counting and telling time. All the senses are involved in cooking: students smell the aroma of food being cooked and the spices being used, they feel the different textures, they see the textures and colors change, they hear the sound of food (corn popping, celery crunching) and they taste the delicious results!

The function of objects can be taught through actual practice with the tools of cooking. Students learn to take turns preparing food and learn to perform a variety of domestic tasks. Large muscles are used to pick fruits and vegetables from a garden to be used in the cooking center. Small muscles are used to stir, chop, scoop, slice, etc.

Ideally, a cooking center should be in the school kitchen. However, if this is not available to you, a cooking center can be made in any corner of your classroom. Wherever the center is, be prepared for a mess. A mess is a part of cooking and the process of cleaning up is as valuable as cooking itself.

The following suggestions will be helpful in establishing a cooking center:

(1) Have a place for all tools and stress that all tools return to their place. A pegboard is often helpful for hanging utensils. Draw an outline of the utensil on the pegboard and color code items to help students remember where to put them.
(2) Break recipes into simple steps. Post the recipe on the bulletin board and use as many pictures as possible.
(3) Have unbreakable equipment whenever possible.
(4) Stress washing hands before cooking and keeping them clean.
(5) Always let the students prepare the recipe as independently as possible.
(6) When the students learn a recipe, send a copy home stating that the student can make it independently, etc.
(7) Know what foods students are allergic to.

Equipping the center can be completed by visiting garage sales or asking for donations. Purchasing the food can be done through the school budget, by asking parents to send in one item a month to be used, or by purchasing the food yourself and deducting the amount as a business expense on your income tax return.

COOKING IN SMALL GROUPS: SAMPLE LESSON PLAN
(The lesson plan is designed to accomodate six students and one instructor)

RAW VEGETABLES AND DIP(S)

(1) Materials

provision for hand washing
colander for washing vegetables
one dull knife for each student
large serving dish
blender* (*optional, can use a fork or pastry cutter to mash)
bowl
large spoon
paper plates

(2) Recipes

celery, green pepper
a bunch of broccoli
a head of cauliflower
cucumber

(1) Wash the vegetables.
(2) Cut the vegetables.
(3) Arrange vegetables on a serving dish.

Dip #1
large container of cottage cheese
two packages of Green Goddess dressing

(1) Put Green Goddess packages in blender
(2) Add cottage cheese a little at a time
(3) Blend until creamy

Dip #2
large container of yogurt (plain)
1 package of onion soup mix

(1) Pour yogurt in a bowl
(2) Blend in soup mix with a spoon

(3) Activities Before Cooking

(a) Use pictures of foods to be used to assist students in labeling and identifying.
(b) Allow students to touch, smell, and taste a sample of each vegetable.
(c) Buy recipe ingredients at the store with a small group of students.
(d) Discuss and model steps of the cooking activity (ie, washing hands, demonstrating the use of utensils, etc.)

(4) Cooking

(a) Post the recipe in the center
(b) Stress keeping hands clean.
(c) Stress key words of the activity: "Mike is CUTTING the CELERY"
(d) Make sure each student has a specific task to perform.

(5) After Cooking

(a) Enjoy the results!
(b) Write an experience story including the recipe to send home.
(c) Assign specific clean-up tasks.

OLFACTORY SENSE

The sense of smell refers to information gained through the nose by a chemical reaction. If exposed to some powerful smells, one's sensitivty to them will deteriorate over time. It is one of the oldest of all our senses in terms of evolution although less is understood about it than with some of the other senses.

"When school is out, we love to follow
our noses over hill and hollow,
smelling jewelweed and vetch
sniffing fern and milkweed patch.

The airy fifth of our five senses
leads us over, under fences.
We run like rabbits through bright hours
and poke our noses into flowers."

F.M. Frost

SMELLING EXPERIENCES

DEVELOPMENTAL LEVEL	ACTIVITIES
0 to 6 months and above	-Burn incense in the classroom.
	-Make a Scratch and Sniff board from stickers that are available commercially in stationary stores. Call it "Follow Your Nose". Hold the board under students nose and let him "follow" the trail of the scents.
	-Spray the classroom with air freshner from one side of the room. See how long it takes students to notice when the scent reaches them (by sniffing, sneezing, turning head, etc.)
12 months and above	-Another activity to increase awareness of the acts of smelling and to give the student the experience of several different smells involves the use of perfume, vanilla and onion. Give the student a cotton ball to smell..."It doesn't have a smell, does it?" Put different smells on three cotton balls and let the student smell them. He can pick up the one he likes best to smell again.
18 months and above	-Have students scribble with the Mr. Sketch smell markers and then smell the paper.
	-Make a "Sniff It" board to have in the classroom. Provide poster board, paste, cotton balls and a variety of smells along with eyedroppers. Let students smell the substances and then put some on the cotton balls with the eyedroppers. Make individual boards to take home.
24 months and above	-Put various herbs and spices in shakers. Brush liquid starch on paper and shake herbs and spices on this.
	-Use a piece of onion, bar of Ivory soap, banana, and peanut butter. Have students smell each item as you label them. Then have them close their eyes, smell the item and try to guess what they have smelled.

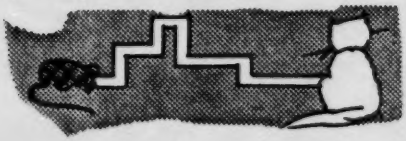
SMELLING EXPERIENCES

DEVELOPMENTAL LEVEL	ACTIVITIES
24 months and above	-Use scratch and sniff books and decals. All the student has to do is scratch the label to activate the scent.
	-Take a walking trip to a florist, bakery, fish or meat market or pizzaria and stress the different smells.
30 to 36 months and above	-Blindfold the student and have him follow you by following the smell you are holding.
48 months and above	-Make up ten smell jars of the following: peanut butter, peppermint extract, coffee grounds, lemon wedge, cocoa, cinnamon stick, Vicks Vaporub perfume, dill pickles or other items that you know are common smells in your students environment. Cut out pictures of the matching objects from magazines. Have the students smell the jar and match it to the correct picture.
	-Burn scented candles in the classroom for a moment and have the student blow it out. Use lemon, orange, strawberry, peppermint and other scents that would have an object that corresponds to it. Have the student smell the candle and match the scent from the candle with the object.
	-Pick a ripe fruit like an orange. Stick toothpicks in it. Press cloves into the holes made by the toothpicks. Cut the cheesecloth large enough to cover the fruit. Place the clove studded fruit on the cloth. Sprinkle with cinnamon. Tie up the fruit ball and hang in the room.

Many of the activities and experiences with smelling involve food. The experience of cooking will provide many opportunities for students to use their sense of smell.

VISUAL SENSE

The sense of sight refers to information received through the eyes. There are four ways in which the brain categorizes this knowledge: form, color, light and shade and spatial relations. Sight is controlled voluntarily since one must turn or attend to something and then INTENTLY focus on it.



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"Look up, look down
Look all around!
Look here, look there
Look everywhere!"

VISUAL EXPERIENCES

DEVELOPMENTAL LEVEL	ACTIVITIES
0 to 6 months and above	-Hang mobiles in an area where the student has periods of time where he is either lying in a specific position or sitting. You can use colored twinkle lights, blinking lighted objects, mobiles, hanging toys or moving toys. The purpose of this activity is to enhance the development of visual ability through visual stimulation.
	-Make a "Wave Machine" from Stephen Caney's play book. You need a large transparent plastic bottle, paint thinner, rubbing alcohol, blue food coloring. After making this apparatus, the students can watch either gentle or crashing waves.
	-Tape large pieces of colored cellophane of each of the classroom windows.
	-Put a goldfish in a bowl and place this within the student's line of vision. The darting and constant movement of the fish will provide visual stimulation.
	-Use a prism on a string beneath a light for visual tracking.
6 to 12 months and above	-Provide a variety of mirrors for students to explore.
	-Use jumbo pegs and encourage student to put the six pegs in the board.
	-Provide simple cause and effect toys that produce a visual reaction such as the Fisher-Price Cornpopper or spinning tops.
13 to 18 months	-Students at this developmental level will attend to large pictures in a book or magazine. You can ask him to find a specific object if only one or two are in the picture.

VISUAL EXPERIENCES

DEVELOPMENTAL LEVEL	ACTIVITIES
13 to 18 months and above	-Students will begin to enjoy looking at a Kalidescope. You may have to hold it for them at first.
	-Provide two sets of identical objects for students to match.
30 to 36 months and above	-Provide a variety of nesting materials. These can be commercially made or teacher made. These and similiar materials will help develop the students visual and tactile senses by experiencin size gradations.
	-Students will be able to begin to match objects to symbolic pictures. Make a matching game by putting objects in baby food jars and providing students with the pictures to match to the jars.
	-Take slides of the students during the school day or when outside and on field trips. Have a slide show and ask students to find themselves in the slides.
	-Use the Viewmaster or Fisher-Price Movieviewer. The animation and the 3-D effect are a visual delight to students when they utilize these commercial materials.
36 to 42 months	-Students will enjoy Lotto games that involve matching picture to picture.
	-Use the Big I, Little I by Creative Playthings or magnifying glasses, telescope, etc. Let the student explore the room or outside environment.
48 months and above	-Use parquetry and the DLM design cards to introduce color and shape matching. Start out with th student matching the pieces onto the card and the progress to completing the design without the guide.
	-Use the Hasbro Lite-Brite. It is a variation of the standard pegboard activity and will produce a lighted design.
60 months and above	-The Perfection game by Lakeside is a favorite activity by many students. The student is timed for 60 seconds to place all the shape pieces in t formboard. This activity helps refine visual perception.

KINESTHETIC OR MOTOR SENSE

This "sixth" sense refers to information gained by moving such as balancing, righting reactions and postural reflexes. The motor sense gives us knowledge of our body, of spatial relations and self-image concepts.

MOTORIC EXPERIENCES

Motor experiences are very important during the first two stages of development. Doing physical actions begins the imitation and representation process. Below is a sample lesson from Creative Movement with the Severely Mentally Impaired. Repetition of the lessons is needed in order for most students to learn from the experience.

CREATIVE MOVEMENT

LESSON ONE

GOAL: The student will respond to a stimulus (verbal command or music) with a motor pattern.

OBJECTIVES: The student will learn:
1.) to respond to a one-step command with a motor action
2.) to move hands, feet and head in isolation
3.) to lie on floor for ten seconds in relaxed state
4.) to grasp parachute

ACTIVITIES:

All students and staff are to be sitting on the floor in a circle.

1.) WARM-UP
The leader of the group verbalizes and models a variety of simple actions for the group to imitate. These can include rubbing various parts of the body with hands, clapping, shaking parts of the body, jumping, twisting, bouncing, sliding, tapping parts of the body.

2.) MOVEMENT OF BODY PARTS IN ISOLATION
The leader of the group verbalizes and models these specific actions:
-Raise your hands, shake your hands, move your fingers, rub your hands, clap your hands, hold your hands together, hold hands with a friend.
-Twist your feet, shake your feet, wiggle your toes, stamp your feet, jump, slide your feet, stretch your feet.
-Shake your head, rub your head, twist your head, bend your head back and forth, stretch your facial muscles.

This is done first without music. After all the actions have been modeled, the activity is repeated to the song "Joy" from the album "The Feel of Music" by Hap Palmer.

3.) USING AN ISOLATED MOVEMENT TO MUSIC
The group will walk around the room to the song "Walking Notes" from the album "The Feel of Music" by Hap Palmer.

4.) RELAXTION

The exercise titled the "Sponge" is done. The group will lie down on the floor on their backs. Arms and legs are outstretched with the palms of the hands facing up. Students are encouraged to lie still for ten seconds. The process of breathing in and out is stressed through verbalization from the group leader. ("Breathe in,breathe out")

5.) INTRODUCTION OF PARACHUTE ACTIVITY

A small parachute is introduced to the group. Although different actions may be attempted (such as moving up and down, to the left and right, etc.) the objective of the first activity is to get the students to grasp the ends of parachute throughout an entire song. The selection of the song can vary.

6.) RELAXATION

The group repeats the sponge exercise described in Activity 4. There is more emphasis placed on breathing to relax in this activity. This is the final activity in Lesson One and staff should prepare students to make the transition to the next classroom center. The staff can assist the student in becoming aware of his breathing process by having one person placing a hand on the student's stomach while he is lying down. The instructor gently pushes up and down on the student's stomach to emphasize the in/out process of breathing.

REFERENCES

Cognitive Mapping
Facts to Consider About Senses
Drool Control
Hands in Mouth Problem
Tactile Defensiveness
Bibliography

COGNITIVE MAPPING

Cognitive mapping is a process by which a person may determine which sensory modes are his strengths and weaknesses in learning. The actual process of cognitive mapping is done in a question and answer format. This usually is presented in written form. Determining the type of sensory learner a person may be through this process is then limited to a population of children and adults who have the cognitive ability to answer the questions presented. This does limit infants, preschoolers, and young children.

However, there exist certain observable behavioral characteristics that infants and young children exhibit that can help you determine sensory strengths. Descriptions of these behaviors will be included in the beginning of each section describing various sensory learners as determined through the cognitive mapping process. This has been done because many people attending these workshops work with a young population

THE HEARER, THE VOCALIZED, THE SPEAKER

The hearing child is one who is soothed by hearing nighttime stories. He makes his own sounds by experimenting with different vocalizations. He enjoys rhymes and rhythms in language and speech. He explores sound. This child will enjoy learning to read.

1. TAL - Theoritical Auditory Linquistics -

This learner relies on listening to words. He responds well to traditional lecture type classes. He would prefer to communicate with friends by the telephone rather than written messages. When he writes a letter, he wants feedback from another person to see how it sounds. He is more aware of the news if he hears it instead of reading it in the paper. He prefers verbal to written directions. He will do better on a test if he has heard the information rather than read it. He speaks better than he writes.

2. TAQ - Theoritical Auditory Quanitive -

This learner relies on listening to numbers. He remembers telephone numbers after hearing it once. He is the type of person when buying a car to dicuss the engine specifications with the salesman and friends. He prefers verbal mathematics tests to written ones and finds them easier. He is very comfortable at adding spoken numbers mentally. When he is shopping, he conducts a running total in his head. It is easy in his math classes to talk formulas with others. He will quote statistics to others to prove a point in arguments. It is easy for him to remember numbers and formulas when he has just heard it.

THE VISUAL CHILD

The child who prefers the mobility of sight is one who is enthralled by colors and designs. He often has good eye-hand coordination. He will look at picture books and point out various designs, objects, etc. He enjoys blocks as a young child and creates various patterns and designs. He is intrigued by the shapes of letters even before he can read. He will enjoy art activities at a young age.

1. TVL - Theoritical Visual Lingusitics -

This learner relies on the written word. Written explanations are more understandable than spoken ones. He would prefer to read something to himself than have someone read it to him. He prefers classes that are focused on textbooks instead of lectures. He will read a dictated letter over. When traveling to a strange place, he wants a map instead of verbal directions. This person will score high on achievement test which rely on reading comprehension.

COGNITIVE MAPPING (cont.)

THE VISUAL CHILD - cont.

3. TVQ - Theoritical Visual Quanitive -

This learner relies on written numbers. He keeps accurate record in his check-book. When shopping, he will keep written totals. He achieves best on written math tests. He can solve a math problem rapidly if it is written. When buying a car, he will ask for the written engin specifications. He maintains a written budget to account for money. He is the first to solve written problems involving numbers when in a group of people. He will write down a phone number as soon as he hears it so he will remember it.

3. QV - Qualitative Visual -

This learner derives meaning through sight. He feels better acquainted with someone if he sees a picture first rather than read about him. He chooses clothes that look good in a picture or on himself. He enjoys looking at art work. The narrative is easier to understand in a movie than in a book. He chooses to read an article that is illustrated by pictures as opposed to just written word. He "thinks" in pictures and graphics rather than words or phrases. When tuning in a radio station, he looks at the numbers on the dial. He can understand a lecturer better if he is looking at him while he talks.

THE TOUCHER

The child who is tactile will be the one who sleeps with a favorite blanket or will cuddle a teddy bear. Some children have unusually warm body temperatures and will complain of being "too hot". They have definite preferences in texture and temperature of their food. They will react to texture in other people, ie. an unshaven face, kisses. They may love or hate backrubs, or any physical contact, but are really never neutral.

1. QT - Qualitive Tactile

This learner gains meaning through touch. He will use his fingers to determine the quality of unfinished wood. He decides whether or not his hair needs washing by the way it feels. He will prefer furniture that he enjoys "running his hand over". This person can button their coat in the dark. He will pick up and feel fresh fruits and vegetables before buying them. He can distinguish a penny from a dime in his pocket by feeling it. He prefers to write with a pen that fits his fingers.

THE MOVER

This child instinctively knows have to fall without hurting himself. He has exceptional kinesthetic ability. He would live outdoors if he could. He will learn early how to clim, how to pump himself on a swing, how to ride his tricycle. He has good control of weight, balance and timing.

1. QP - Qualitative Proprioceptive

This person uses automatic or involuntary responses. He can drive a car with great skill and carry on a detailed conversation at the same time. He always is able to write legibly while another person dictates. He can catch a ball that has been struck or thrown. When riding a bike, he can stay on the path while looking at the scenery. He is considered to be a good amateur athelete and he is a good dancer. When he types, he does not need to keep his eyes on his fingers. He can play ping-pong well enough to enjoy.

COGNITIVE MAPPING (cont.)

THE SNIFFER AND TASTER

There is relatively little known observable behaviors that infants and young children exhibit in these areas. The best a parent or teacher can do is watch to see if their child tunes in to odors or tastes in his environment.

1. QS - Qualitative Savory

This person gains meaning through the sense of taste. He can tell if wine is sour by taste. The taste of food is more important than the appearance. The suffering in a dentist chair is alleviated if the dentist uses pleasant tasting substances in his mouth. He enjoys trying new foods in order to discover new tastes to like. He will join a gourmet club. He returns to restaurants because the food is good. Selecting a beverage will be based solely on taste. When he cooks, he will use various spices until the food tastes just right. When blindfolded, he can tell the difference in taste between coffee and chocolate ice cream.

2. QO - Qualitative Olfactory

This learner gets meaning through the sense of smell. He can tell what's for dinner by the smell when he walks in the house. He can distinguish fresh fruit by the smell from stale fruit. An unpleasant odor in a room is more disturbing to him than others. He believes that a customary smell of a store influences it's sales volume. He can distinguish between several varieties of flowers by smelling them. The aromas in a room determine for him whether a place is pleasant or unpleasant. The smell is an important aspect of the pleasure connected with a new car.

TO BE INCLUDED IN THE HEARER:

3. QA - Qualitative Auditory -

This learner gains meaning through sounds. He can recognize who is on the phone just by listening to the voice for a few minutes. He can tell the difference between two closely pitched sounds. Random sounds will interfere with his ability to concentrate. He is able to tell which groups of instruments and percussion are playing at various times during a concert. He can tell if something is wrong with his car just by listening it. He tunes in a radio station just by dialing and not paying attention to the numbers on the dial.

REFERENCE:

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FACTS TO CONSIDER ABOUT OUR SENSES

Sensory Stimulation -

It is the way a child begins to know the world. The more sensory stimulation the child experiences, the more information he has stored in the brain to use in thinking processes.

Perception -

Defined as the awareness of objects or other data through the medium of the senses. (Webster's Dictionary p. 1085). This includes not only the functions of hearing, seeing, etc., but the function of attaching meaning.

Perception -

Allows for discrimination and begins by focusing to a specified object (attending).

Sensory Input -

Individual characteristics as one child may need a louder noise than another to get the same message.

Developmental Sequencing -

Connection between stimulation and developmental progress. A child may be unable to assimilate the sense experience so amount, kind and timing is associated with individual need.

State -

The overall state of the child affects what is transmitted through the senses. The relationship between response and state varies according to the sense.

Individual Difference -

Each child differs in amount of stimulation as well as the threshold of perception they may have. Active and inactive children are significantly different. (E.g. inactive-explore with sight and touch; active-hunger excited and person oriented).

Sensation is the earliest form of play.

Each child has a sense that is more prominent than the others. The type of sensory learner they are can be discovered through observation of the child's response to their environment.

Two worlds of senses:

1) The external sensory world and the ways in which it affects your child, and

2) His own sensory way of perceiving life: the individual sensory patterns.

DROOL CONTROL

General Comments

It is difficult for the child to swallow if he has poor control of the jaw. If he must breathe through his mouth, the jaw will rarely be closed. Saliva is more likely to be drooled than swallowed in children who are mouth breathers and have other problems with swallowing control. Poor lip control can make the control of drooling more difficult.

Children will drool under different circumstances depending upon the particular situation. In general, the childs control of the drooling is usually worse when he is engaged in another activity which requires his attention. Many children who have always drooled are unsure of the contrasting feelings of wetness and dryness. If the child is unable to wipe his mouth, he may not have the physical control for either wiping or swallowing. He may not be aware of the sensory cues, which tell him he is wet or tell him enough saliva has accumulated in the mouth to swallow.

Program Guidelines:

1. *We want swallowing to be an automatic process that the child does not have to think about. It is no good to constantly remind a child to swallow.*
2. *If the child is assisted in keeping his mouth closed when he is listening to a story, or when touch is being given to him on the gums or inside the mouth, he will increase the amount of swallowing which he does. Since the mouth is closed, the saliva will collect inside the mouth until the child is ready to swallow. He, thus, can learn to recognize the pressure cues which are needed to trigger a swallow.*
3. *Some children seem to be unaware of the perceptual cues which tell them that the face is wet. They have always known wetness and have accomodated to it as much as the adult becomes unaware of the feeling of his watch on his wrist. The feeling of dryness should be emphasized with these children. This can be done by blowing warm air on the face with a small portable hair dryer and talking about the feeling of warm and dry. When the face is dry momentarily, pleasant smelling talcum powder can be patted on the face. General concepts of wet and dry can be taught during bath time, water play, etc.*

Specific Techniques for Drool Control:

A. <u>Lip Closure</u>

1. *Stretch pressures*
   a. *Do above center upper lip, below center lip, at sides of mouth*
   b. *Method*
      1. *Place index finger and thumb together*
      2. *Press on designated spot on student's lips*
      3. *Press fingers slightly apart*
      4. *Lift fingers from student's face*
      5. *Repeat on entire mouth at designated spots*
      6. *Allow student to swallow*
      7. *Go around mouth three times.*

DROOL CONTROL (cont.)

c. Alternate Method
   1. Do above lips and below lips
   2. Grasp lip with thumb on inner surface of lip and with index and index and middle finger on outer surface
   3. Pull lip out firmly and quickly. Allow lip to retract
   4. Repeat procedure three times for upper and lower lip
   Note: On lower lip, position of the fingers will be reversed

2. Brushing and Icing -
   a. Do only if tolerated by student
   b. Brush around the mouth, three times
   c. Follow with icing around the mouth, three times
   d. Allow student time to swallow
   e. Give resistance to lip closure with fingertips

3. Physical Manipulation
   a. Close students jaw and teeth
   b. Place one hand under the chin and hold in position
   c. Use other hand to stroke cheeks and lips foreward to encourage relaxed, normal position
   d. As student relaxes gradually release pressure without removing finger.
   e. Resume control as necessary

4. Other Suggestions to Improve Lip Closure
   a. Firm pressure applies inward simultaneously above and below the lips or just to the upper lip with your fingers during drinking and eating. Assists in lip closure and swallowing. If the individual resists, place a toy or hold the hand as this is calming.
   b. To attain improved movements of the lips or jaw, push them in the opposite direction of desired movement. (This method is not always successful).
      1. To facilitate opening, push in direction of closure on chin (upward pressure for 1-2 seconds).
      2. To facilitate closure, push in the direction of opening on chin (downward pressure for 1-2 seconds).
      3. Make sure the head is stabilized when doing this.
   c. Play-type activities that encourage lip closure and increase breath control making mmm sound, blowing kisses, bubbles, cooling off warm things and blowing dandelions, balloons, windmills.

B. <u>Swallowing</u>

1. Jaw Control
   a. Used to facilitate more normal jaw alignment and movement. The third finger, which is both front and side jaw control is placed under the childs chin at the base of his tongue, can be used to stimulate swallowing by applying firm-but not hard- pressure to the root of the tongue.

b. Firm tactile pressure can be applied under the childs chin at the root of the tongue, without jaw control in order to facilitate swallowing when the child does not have problems which warrant use of full jaw control.
c. For some children, stroking upward or downward on the throat sometimes helps to assist the child in getting the idea of swallowing. The index finger used in a sideways position with slight pressure, seems to work best. If the child's jaw is retracted, downward stroking may retract the jaw even more whereas upward stroking may help bring the jaw into better alignment.

2. Pressures
a. With the fingertips, scrub in the occiput at the origin of the upper trapezius. This is the area of a sensory filament of the XII Cronial Nerve. This gives the total pattern for swallowing on need. Scrubbing here at any time will usually lessen drooling.

3. Tactile Stimulation
a. Firmly give tactile stimulation to the lips, above lips, below the lips and cheek.

C. Tongue Movement/Mobility

1. Tongue stapping
a. Usually used prior to stimulating actual tongue movement. Walking back with a spoon or tongue depressor provides tactile stimulation to the mouth.

2. Food as a stimulator of tongue movement
a. Place the food in such a position that it will elicit the tongue movement that you want from the child. If you want him to move his tongue to the side, inside his mouth, place your finger, the Q-tip etc. inside the mouth on the side to which you want the movement from the child.

3. Specific Movements
a. Retraction - Use ball end of a swizzle stick or your finger to vibrate gently under the tongue and chin.
b. Lateralization - Press swizzle stick against the lateral surface of the tongue. Gently push over to other side of mouth. Stimulate both sides several times.
c. Elevation - Lightly touch the swizzle stick to the roof of the mouth.
d. Protrusion - Push tip of tongue with swizzle stick.

D. Digital Stimulation

1. General Guidelines
a. Do not use with swollen gums
b. Position properly
c. Do in quadronts
d. Teeth closed
e. Do once every half-hour

DROOL CONTROL (cont.)

2. Procedure for outer gums
   a. Stroke midline to toothline
   b. Do not cross midline
   c. Repeat three times only
   d. Remove your finger. Maintain jaw control and wait for a swallow.

REFERENCES:

Program Guidelines for Children with Feeding Problems, Suzanne Evans Morris

Feeding the Multiply Handicapped:

Information, Problems and Techniques, Colleen Crook, Valerie Grahan

Problem-Oriented Approaches to Feeding the Handicapped Child, Philippa H. Campbell

Information Compiled by: Sharon Rauner, O.T.R.

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FOR REFERRALS WHERE "HANDS IN MOUTH" IS A PROBLEM:

We have to maintain a commitment to providing the least restrictive environment for our students. The use of restraints under a formal behavior plan for attemtping to modify "hands in mouth" behavior is justified in only a small number of cases. This is because:

1. Many of our students are functioning at an infantile level of development. Therefore, we would expect them to put their hands in their mouths. This is what normal babies do.

2. Many students who put their hands in their mouths do not injure themselves. We cannot justify using restraints on a child simply because he engages in behavior unpleasant to look at.

CONSIDER THE ALTERNATIVES WHICH ARE LESS RESTRICTIVE (and more humane):

1. "Agenting" or physical prompting of student's hands through a task.

2. "Strap on the wrist" items which the student can suck or chew (i.e. pacifier-type items which can be washed).

3. Unusual toys and objects which encourage grabbing and use of hands.

4. Disapproval: tell the child not to do it. This may sound ridiculously obvious, but has it been tried?

4c

PROBLEM: CHILD DOESN'T LIKE TO BE TOUCHED AND IS HYPERSENSITIVE AROUND THE FACE AND MOUTH

GOALS:
1) To identify those situations involving touch that the child can tolerate and those which he cannot tolerate.
2) To teach him to enjoy being physically handled and reduce the hypersensitivity in the area of the mouth.

CHECK LIST

a) Does he spontaneously put toys, objects and his hands into his mouth?

The child who does not do this may dislike touch inside the mouth. He is not providing his own self-stimulation to reduce any hypersensitivity which is present.

b) Does he like to have you hold him? rock him? rub his back?

A very hypersensitive child may dislike any close bodily contact.

c) Does he like to get his hands into things such as paint, sand or water?

The child who repeatedly rejects such activities may be telling a teacher or parent that this makes him physically uncomfortable.

d) Will he let you touch his face?

Child with hypersensitivity to touch are usually more sensitive as one approaches the face and mouth.

e) Does he react differently if you use firm pressure or light touch?

Firm pressure is less stimulating than light touch.

f) Does touch on the face or inside the mouth make him physically stiff or increase his tightness?

This occurs frequently if the child also has cerebral palsy.

g) Does he bite down on the spoon and have real difficulty letting go?

Biting on the spoon usually indicates that the child still has a bite reflex and hypersensitivity within the mouth. It may be a behavioral problem in some children. Some children without physical problems will bite the spoon on purpose to aggravate the person feeding them.

h) Does he gag when he is touched inside the mouth with a finger, toy, or food?

Children with oral hypersensitivity may show a gag reflex which is produced by touch in the front of the mouth rather than on the back of the tongue. A gag produced by touch on the back of the tongue is normal.

PROGRAM GUIDELINES

1. A program to increase the amount of tactile stimulation tolerated by the child should be begun. Stimulation should begin in the areas best tolerated by the child. This is usually in the lower body or trunk. The closer to the face and mouth, the more sensitive the child often is. Firm, deep pressure should be used rather than a light touch which may be tickling or irritating to the child.

PROGRAM GUIDELINES (cont.)

2. *As much as possible, the increased stimulation should be done either in the form of spontaneous play and rough-housing or in a very calm close way as the child is sitting in your lap while you are cuddling him or rocking him in a rocking chair.*

3. *Gradually work your stimulation toward the child's face. Do not force him to accept it. If he struggles or fights you, slowly go back to stimulation he accepts more readily. Then work back toward the more difficult areas. Some children will accept more if the teacher or therapist is making a game out of it.*

4. *Encourage him to accept new sensations with his hands. Use sand, finger paints, smearing food with the hands, water play, etc. Take advantage of the clean-up time to give good stimulation with a soft cloth or terry cloth towel in washing and drying him. Again, use firm, slow pressure in patting dry his face, hands, and arms.*

5. *Encourage him to put toys into his mouth for exploration if he does not do this too much already. Soft rubber animals (such as can be purchased in a baby department store or at the pet store) are excellent for this purpose. Many of these toys have parts which protrude and can be stuck into the mouth such as bills, legs, trunks, feet and tails.*

6. *When the child can tolerate stimulation on his body, arms and hands and will accept your hands placed on his face, begin to work inside the mouth. This can be started by helping the child to mouth his own hands and fingers and small toys as described in the previous step.*

7. *When working inside the mouth of a young child you need to be clever and often "sneaky". Your index finger can be used to stroke the upper and lower gums firmly but quickly on each side as you pretend to count the child's teeth or as you seem to search for the cookie which the child just ate. If the child lets you find that the cookie is all gone, then he is told he is ready for another bite. He thus get reinforced for letting you touch inside his mouth.*

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REDUCING TACTILE DEFENSIVE RESPONSES

1. Have the child actively rub bare feet, arms, legs, hands on various tactile surfaces (burlap, sandpaper, shag carpet, sheet, blanket, towels, plastic, rubber) once or twice per day. Log rolling or doing somersaults on these surfaces is good.

2. Have the child roll up (like a hot dog) in a blanket or large towel or bedspread, initially helping to roll tightly. Then the child can lay on his or her side and gently rock back and forth or pull herself or himself along using arms (like a seal) with legs still rolled in blanket. Then have the child unroll.

3. Have the child identify body parts by having him or her rub the part with a washcloth (tummy, arms, legs, forehead, etc.) or use lotion or cream and have the child rub it into various parts.

4. In the bathtub have the child use a washcloth to wash and rub himself or herself. Dry by rubbing briskly with a terry cloth towel.

5. When touching the child be firm (not a soft touch) so that the tactile receptors are aware of the touch.

Reference: Sensori-Motor Activity Guide